

II. REMARKS/ARGUMENTS

A. Remarks.

The allowability of claims 7, 9, 14, and 15 were withdrawn in view of Li et al. US 2005/0173118. Claims 4 and 7-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Li et al. '118.

B. Response

Claims 4 and 7-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Li et al. '118. Li et al. '118 was cited for the proposition of teaching a shaped charge assembly having a casing with an open and closed end and walls extending away from the closed end and a reinforcing system. The reinforcing system was purported to include a retaining shell around the casing and a bushing coaxially disposed between the casing and the shell.

In response, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). Although applicants appreciate the effort taken to provide a copy of FIG. 4A in the action and point out what is considered to be a bushing, applicants respectfully disagree that the item identified as such is in fact a bushing. Instead it is urged that this component is a case 12 for a shaped charge 10. Reference is made to FIG. 1, FIG. 6A, and FIG. 6B of Li et al. '118, in these figures a substantially similar shaped charge 10 is shown including its case 12.

Below is an excerpt from Li et al. '118 describing a conventional shaped charge and its case:

Referring to FIG. 1, a conventional shaped charge 10 includes an outer case 12 that acts as a containment vessel designed to hold the detonation

force of the detonating explosion long enough for a perforating jet to form. Common materials for the outer case 12 include steel or some other metal. The main explosive charge 16 is contained inside the outer case 12 and is sandwiched between the inner wall of the outer case 12 and the outer surface of a liner 20.

Paragraph [0026] Li et al. '118.

Li et al. '118 further includes citations to a case 12 with respect to the embodiment of FIG. 6A and FIG. 6B.

With respect to FIGS. 6A and 6B, yet another embodiment of the shaped charge holder of the present invention includes an improved jacket 300 for holding a relatively small shaped charge 10 in a universal loading tube 40 of a hollow carrier perforating gun 30 that is intended to carry larger charges. The improved jacket 300 includes an interior bore with a protruding element 308 formed thereon biased radially inward. The protruding element 308 engages a circumferential groove formed in the casing 12 of the shaped charge 10 to hold the charge to the jacket.

Paragraph [0039] Li et al. '118.

Moreover, in the description of FIG. 4A the housing assembly 100, which comprises top and bottom sections (102, 104), defines an interior bore for receiving the shaped charge 10. The housing assembly 100 and its components (102, 104) surround the component applicants herein define as a casing 12 (referred to as a bushing in the action). The housing assembly 100 of FIG. 4A is consistent with the embodiment of the housing 200 of FIG. 5A and FIG. 5B (and its top section 202 and bottom section 204) in that both housing assemblies surround the casing 12. As such, Li et al. '118 does not teach placing structure between the shaped charge 10 and its housings/jackets (100, 200, 300).

Accordingly, the structure referred to as a bushing in the action is in fact the casing 12 of the shaped charge 10. Because Li et al. '118 fails to disclose the bushing of the pending claims of the present application, each and every embodiment of these claims is not found within this reference. It is therefore respectfully requested that Li et al. '118 be removed as a basis for the rejection of claims 4 and 7-15.

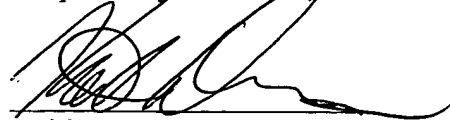
III. CONCLUSION

It is respectfully urged that in light of the above stated arguments that applicants' claims are patentable in light of the prior art. Li et al. '118 does not include the bushing of the pending claims, thus the rejection of these claims under 35 U.S.C. § 102(e) should be reconsidered and removed. It is believed that the foregoing response is full and complete. Applicants respectfully request reconsideration of the instant application in light of the foregoing response and amendments.

Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of the application, the Examiner is invited to contact the Applicants' representative by telephone or fax.

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Respectfully submitted,



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